

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

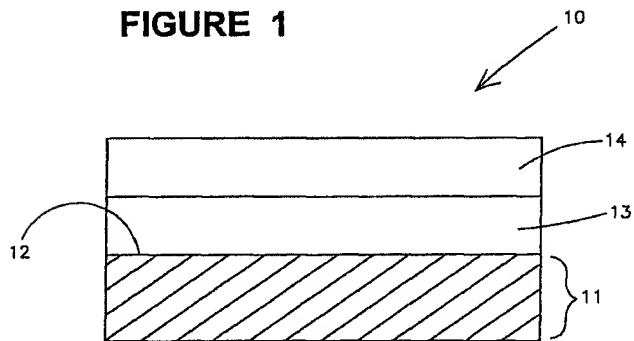
PATENT NO. : 7,560,815 B1
APPLICATION NO. : 09/603132
DATED : July 14, 2009
INVENTOR(S) : Vaartstra et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page should be deleted and substitute therefor the attached title page.

Please replace Figure 1 with the following Figure 1:



Signed and Sealed this

Thirteenth Day of July, 2010

David J. Kappos

David J. Kappos
Director of the United States Patent and Trademark Office

Please replace Figures 3 and 4 with the following Figures 3 and 4:

FIGURE 3

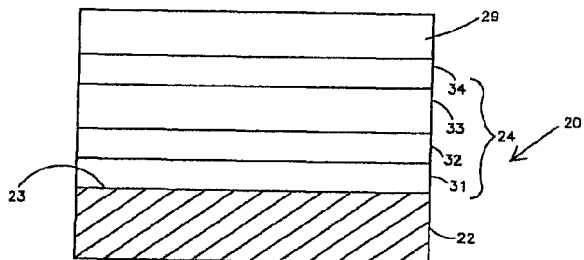
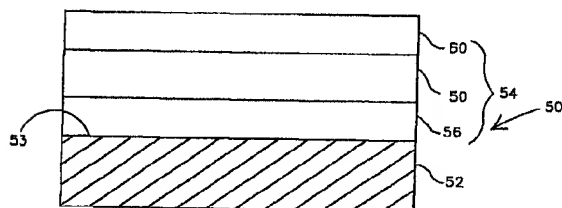


FIGURE 4



Please replace Figures 5 and 6 with the following Figures 5 and 6:

FIGURE 5

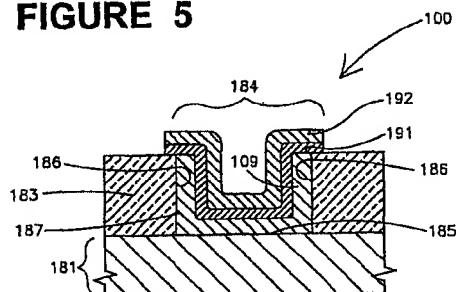
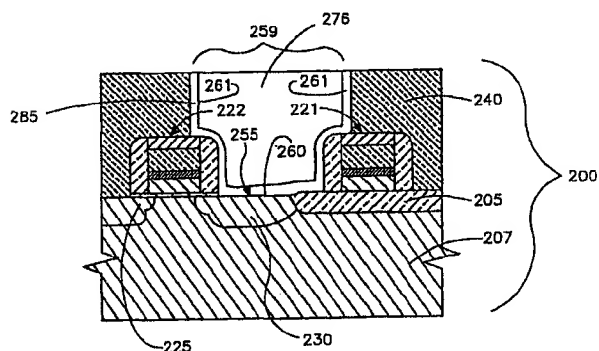


FIGURE 6



(12) **United States Patent**
Vaartstra et al.

(10) **Patent No.:** **US 7,560,815 B1**
(45) **Date of Patent:** **Jul. 14, 2009**

(54) **DEVICE STRUCTURES INCLUDING RUTHENIUM SILICIDE DIFFUSION BARRIER LAYERS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 734 days.

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(21) Appl. No.: **09/603,132**

(22) Filed: **Jun. 23, 2000**

Related U.S. Application Data

(62) Division of application No. 09/141,240, filed on Aug. 27, 1998, now Pat. No. 6,197,628.

(Continued)

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(51) **Int. Cl.**
H01L 29/94 (2006.01)

(52) **U.S. Cl.** **257/751; 257/E23.16**

(58) **Field of Classification Search** **257/486, 257/751, E23.16; 438/627, 643, 653**
See application file for complete search history.

H. D. Bhatt et al., "Novel high temperature multilayer electrode-barrier structure for high density ferroelectric memories," *Appl. Phys. Letter*, 719-721 (1997).

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(57)

ABSTRACT

A device structure including a substrate assembly having a surface. A diffusion barrier layer is formed over at least a portion of the surface. The diffusion barrier layer is formed of RuSi_x , where x is in the range of about 0.01 to about 10. Capacitor electrodes, interconnects or other structures may be formed with such a diffusion barrier layer.

20 Claims, 5 Drawing Sheets

